

Enterprise Content Management Study

Nebraska Information Technology Commission

Government Technology Collaboration Fund - 2001

Grant Application Form

(Deadline for Submission: August 31, 2001)

For more information about Government Technology Collaboration Fund grants, see the Grant Guidelines at <http://www.nitc.state.ne.us/sgc/grants/>.

Contact information for questions regarding this form:

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Enterprise Content Management Study

Section I: General Information

A. Project Title: **Enterprise Content Management Study**

Submitting Agency (or Agencies): **DAS/Information Management Services
Workers' Compensation Court**

Contact Information for this Project

Name: **Kevin Keller**
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B. Certification for Request

I certify that to the best of my knowledge the information in this application is correct and that the application has been authorized by this entity to meet the obligations set forth in this application.

Name: **Kevin Keller**
Title: **Information Technology Manager**
Agency: **DAS/IMServices**
Date: **August 30, 2001**

Total Grant Funds Requested: **\$ 100,000**
Total Project Costs: **\$ 135,000**

Section II: Executive Summary

Provide a one or two paragraph summary of the proposed project. This summary will be used in other externally distributed documents and should therefore clearly and succinctly describe the project and the information technology required.

The Enterprise Content Management Project is a two-phase undertaking to address the methodology of systematically organizing the State's electronic information resources so that the resources can be managed, secured, and made available as required. Conceptually, the need for enterprise content management combines interagency business knowledge, policies, information content, work processes, and technology with an overlying architecture that can deliver the content via a flexible, adaptive, portal-based service accessed with a single sign-on.

During phase one, collaborating agencies will investigate the needs of the different sectors of government for information resources management. Agencies have begun work with the Secretary of State in this effort. They also will research and analyze enterprise-wide solutions to determine a course of action. The Court Administrator's Office is looking at content management as a potential solution for their case management system. During phase two, a process will be implemented to begin the transition to an enterprise-wide solution. It will provide a working production model and a set of best practices.

The issue of managing electronic content or informational resources, is that as more and more state documents are stored electronically rather than in traditional filing cabinets, it is necessary to rethink the process and adjust how we manage records and data. Moving from the physical and cumbersome limitations of paper-based business methods to the potential of unlimited and instant access in the computerized and networked world makes it a requirement to adjust policy and practice.

In addition, the large investment in a diversity of automation and storage solutions in state government has created the need to offer a common portal to all information and insure a sound method of maintaining, securing, and preserving it. A Gartner, Inc. study confirms that, because of funding methods and political boundaries, much of government has responded to e-business initiatives with "individual agency silos" which can disrupt efforts for information, application, and infrastructure reuse.

Additionally, the Internet has changed the expectations in the business place, including state government business. Today citizens, businesses, and employees demand that information in all forms will be there at their fingertips and will be accessed easily and efficiently.

The technology to deliver better service in information resource management has been developing quickly and a number of companies are promoting different methodologies to implement it. The collaborating agencies will analyze what is available and determine a solution which best meets the identified needs and will begin the process required to implement it.

Section III: Goals and Objectives

1. Describe the project, including the specific goals and objectives.

This is a two-phase project. During the first phase, collaborating agencies will analyze the needs for information resources management and will research enterprise-wide solutions to determine a course of action. During phase two, a process will be implemented to begin the transition to an enterprise-wide solution. It will provide a working production model and a set of best practices

Phase 1 During the analysis phase of the project, collaborators will be identified in the various sectors of state government to represent the broad spectrum of informational needs and processes in state government. We will investigate the content management strategies available and determine the best means of providing a centralized methodology for managing, securing, and retrieving all types of information. Our approach will be to contract with a qualified consultant to complete the research.

In addition, the collaborators will identify the costs associated with such a solution. It is anticipated that there may be five areas including:

- An enterprise portal to serve as the interface to the entire process
- A tool to consolidate processes
- Storage
- A document management tool
- A content management tool

The project will include looking at funding issues to determine if an appropriation request is needed to continue full implementation of the system after the immediate project is completed. We anticipate working closely with the agencies, the CIO and the Legislature to determine the best course of action and methods of funding it. The agencies and the CIO will be instrumental in defining an overall structure that will encompass the wide variety of information to be managed. Their support will be critical to an acceptance of a common enterprise-wide solution.

Phase 2 During the resolution phase of the project, we will construct the infrastructure of the system and start its implementation as the current funding allows. A foreseeable plan would be to include the agencies which have participated in Phase 1 and begin to make their data available through the content manager. While we anticipate that time and funding will limit the second phase, we fully expect the initial work will establish a working production model and a set of best practices for continued work. It also will provide a basis for future funding and expectations.

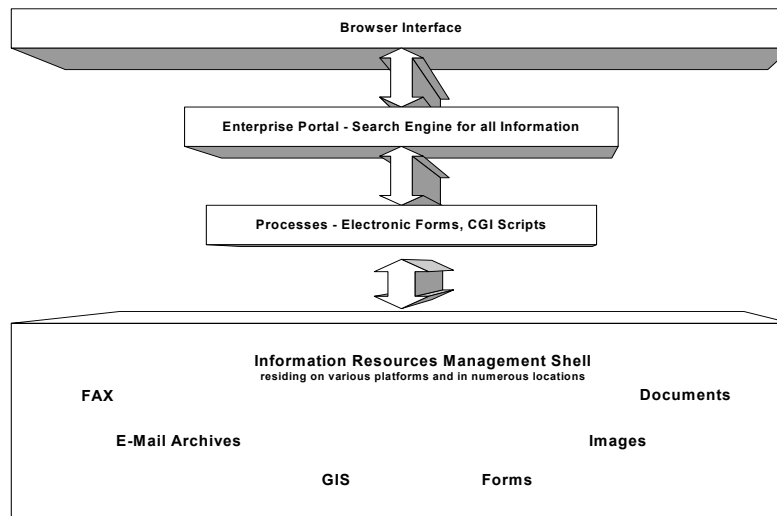
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2. Describe the project's relationship to the agency's comprehensive technology plan.

Most state agencies' plans acknowledge the need to more effectively and efficiently provide electronic government information and services. The supporting role that IMServices addresses in its technology plan is to provide service through collaboration with other interested agencies and organizations for the benefit of all state government. In their daily work with state agencies and other governmental entities, IMServices and other agency IT directors have begun to recognize this particular need and the opportunity to collaborate in seeking and recommending a joint solution to the problem of management of electronic informational resources.

3. Describe, if applicable, how this project furthers the implementation of electronic government. [Preference will be given to projects which support the State Government Council's priority of implementing electronic government as reflected in the goals of the Business Portal Action Plan and the E-Government Strategy (available at <http://www.nitc.state.ne.us/sgc/>).]

The E-Government Strategy is directly addressed in a number of ways with this project. The need for information access across the state agencies spans Goal #1 (Government to Citizen and Government to Business), Goal #2 (Government to Government), Goal #3 (Government to Employee), and Goal #4 (Integration of Government Information and Services). It will encompass a wide variety of informational resources from e-mail to databases to maps to web page transactions.



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Specifically, the use of Internet technology as a solution will be studied. Forms availability as well as the transactions, storage, searching, and retrieval involving e-mail, common state government information, and other documents and data should be affected. The collaborating agencies hope to recommend standards and best practices in incorporating content management into the agencies' business processes.

In addressing the presentation interface for access to content, the project will meet the goals of the Business Portal Action Plan. Our objective is to improve the process of doing business where it applies to information accessibility. We will look at the transition of traditional and oftentimes manual records management to automated techniques of sharing as well as insuring security for government documents and data. More efficiency and effectiveness should result from a well-planned and implemented joint solution for the agencies. Improving accessibility will additionally make the content management solution compliant with Section 508's objective of using adaptive technology.

The project aims towards an enterprise approach for linking the broadest variety of informational resources, thus enabling the easy provision and exchange of information. The system will achieve that objective of integrating information and services by the enterprise portal and associated tools which will present a uniform interface while allowing the agencies to retain ownership and control of their data and its underlying information technology processes and structure.

We anticipate that the project will affect a high volume of information and resources. As a result it will affect a large number of people. There are a number of solutions in place and also in development. The project will encompass those solutions while establishing a set of best practices for future work towards meeting the e-government goals.

Section IV: Scope and Projected Outcomes

Describe the project's specific scope and projected outcomes. The narrative should address the following:

1. Beneficiaries of this project and the need(s) being addressed;
2. Expected outcomes of the project;
3. Measurement and assessment methods that will verify project outcomes;

Everyone who needs access to state government information whether in a creating, participating, or viewing role will benefit from the content management project. This includes the collaborating agencies, all the agencies they cooperate with in state government, and the clients of all those agencies.

Phase 1 During the first phase, collaborating agencies will investigate the needs of the different sectors of government for information resources management and will research enterprise-wide solutions to determine a course of action. The scope of this phase includes coordination of the collaboration, which allows the identification of business needs, demand, existing data, and methods of storage. It includes the research of the issues and current strategies, identification of costs and methods for funding, and recommendation of a solution. We anticipate the outcome of this phase to be a course of action for starting the second phase. In addition we expect to have a plan for coordination of support from agencies, the CIO, and the Legislature for the deployment of a recommended solution.

Phase 2 During the second phase, a process will be defined to begin the transition to the enterprise-wide solution. This phase will produce an implementation plan that assembles the infrastructure of a content management system and begins the process of linking existing informational resources from the collaborating agencies. Time and funding limits the scope of the second phase so it can not include full implementation for all state agencies or all data. However the initial work should provide an initial management tool for some agencies' informational resources and it will establish a working production model and a set of best practices for continued work.

Section V: Project Justification / Business Case

Please provide the project justification in terms of tangible benefits (an economic return on investment) and/or intangible benefits to the agency or the public. The narrative should address the following:

1. Tangible: Economic cost/benefit analysis;

There are tangible savings in a collaborative solution that meets a wide variety of needs and does not duplicate the cost of implementation across multiple agencies. In addition, separate solutions for various areas of government will not accomplish a common access and security method, which has a cost in lack of efficiency and increased vulnerability.

In the current environment an employee, citizen, or business is required, depending on their role, to check in numerous places in order to make sure no information or data is missed. No single computer search will search all computerized data in state government. We can compare that reality to the proposed environment with an enterprise content management system that will accept a query and seek related information regardless of location or format or agency while maintaining the level of security necessary to maintain appropriate access and confidentiality. There is a definite cost savings in time saved with more productive efforts and less risk of damaged or inappropriately accessed data.

The State of California has implemented a system similar to the proposed project. With a population base of 34 million people they chose the product BroadVision, which they viewed as a best-of-breed platform. The estimated cost was over one million dollars. While their investment may seem expensive, their Web site became one of the top ten growth sites in the world according to Media Metrix. California's number of monthly users grew 66% over the previous year and a user survey showed 95-99% satisfaction.

2. Intangible: Benefits of the project for customers, clients, and citizens and/or benefits of the project for the agency;

There is so much information in state government that should be available to everyone. Accessibility is hindered greatly by the physical limitations of geography, computer access, or warehouses where excessive older documents are kept. It can be very expensive to overcome these barriers in the most obvious ways but a content management system can accomplish that.

This project will provide a path for many state agencies to develop their Internet applications, make their information resources available to the public, and organize the information involved with their routine business processes. It will allow agencies to place their efforts in their business rather than focusing on the technical issues of information resource management.

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3. Other solutions that were evaluated and why they were rejected. Include their strengths and weaknesses. Explain the implications of doing nothing and why this option is not acceptable;

The evaluation of solutions will be a part of this project. The group expects to investigate many strategies to rank how well they will address the spectrum of needs found among the agencies. Coordinating an evaluation with a variety of functional sectors of state government is an efficient manner of studying solutions and addressing needs. We anticipate that it effectively will drive progress towards the end goal of implementing an enterprise information management solution. A high level of active participation will guarantee a more satisfactory solution.

The need has grown quite rapidly for readily available information from government. Today's expectation is that information will be there -- easy to access and use online. Yet because of the costliness and continuing evolution of the solutions available, agencies have been cautious in addressing the demand. As a result, while all of government is increasing the amount and variety of information stored electronically, we are still rooted in paper-based practices. The public sector demand continues to build with greater exposure to new technologies.

The agencies involved in this project believe that there are some good, viable solutions available now and addressing the issue at this time is optimal. Postponing the project delays progress and could exacerbate the problem of finding a solution to address the rapidly growing demand for an increasing amount of informational resources. Even though the industry may eventually produce better, more cost-effective solutions in the future, it is critical to pursue a solution now.

4. If the project is required to comply with a state or federal mandate, please so indicate.

The project addresses the statutory requirement and the mandate to provide more accessibility to public information.

Section VI: Implementation

Describe the implementation plan -- from design through installation and ongoing support -- for the project. The narrative should address the following:

1. Project sponsor(s) and stakeholder acceptance analysis;
2. Define the roles, responsibilities, and required experience of the project team;
3. List the major milestones and deliverables for each milestone;

After the completion of the first phase, it will be necessary to involve top administration to review the feasibility of the proposal and whether it successfully addresses the enterprise-wide needs of state government. A broad representation from the state agencies will insure acceptance. Representatives of participating agencies and key IT and records staff should oversee the process.

Phase 1 December 2001-March 2002

Phase 2 April 2002- April 2003

4. Training and staff development requirements and procedures;

N/A

5. Ongoing support requirements, plans and provisions.

N/A

Section VII: Technical Impact

Describe how the project enhances, changes or replaces present technology systems, or if new systems are being added. The narrative should address the following:

1. Descriptions of hardware, software, and communications requirements for this project. Describe the strength and weaknesses of the proposed solution;

Phase 1 This phase does not require hardware, software, or changes to the communications network. Rather its objective is to discern the various resources in state agencies that would be more valuable and useful if brought together under a common management system. The research will look at communications, applications, information workflows, web content, traditional data, traditional documents, business functionality, process management, storage, security, and so on.

Phase 2 This phase will begin the implementation of a solution which serves, in a sense, as pilot project and proof of concept. It will implement the infrastructure of hardware and software to provide the collaborating agencies with a starting point for content management. A well-designed solution will deliver a layer of management that allows agencies to continue with their current technology, infrastructure, and security systems. Yet it will provide new and simplified access to important resources for government employees as well as citizens and the business community. This option will not only provide maximum benefits in efficiency and cost savings for the State, but will begin to provide valuable information to the many clusters of government information customers.

This project will provide a path for many state agencies to develop their Internet applications, make their information resources available to the public, and organize the information involved with their routine business processes.

2. Issues pertaining to reliability, security and scalability;

The object of the study is integrally tied to security and scalability. As we work towards a single access portal, the security of data and the complexity involved with providing information to a broad range of customers, who use data in varying roles, increases dramatically.

Also, as the technology succeeds in providing a more sophisticated delivery of information, the demand will increase and the State could face expectations to provide yet more information more quickly to even more people.

An issue that is integrally tied to the solution of enterprise content management is the availability of a statewide directory. The statewide directory will insure security and will identify roles or capacities of customers accessing data, thus insuring confidentiality and reliability of the data.

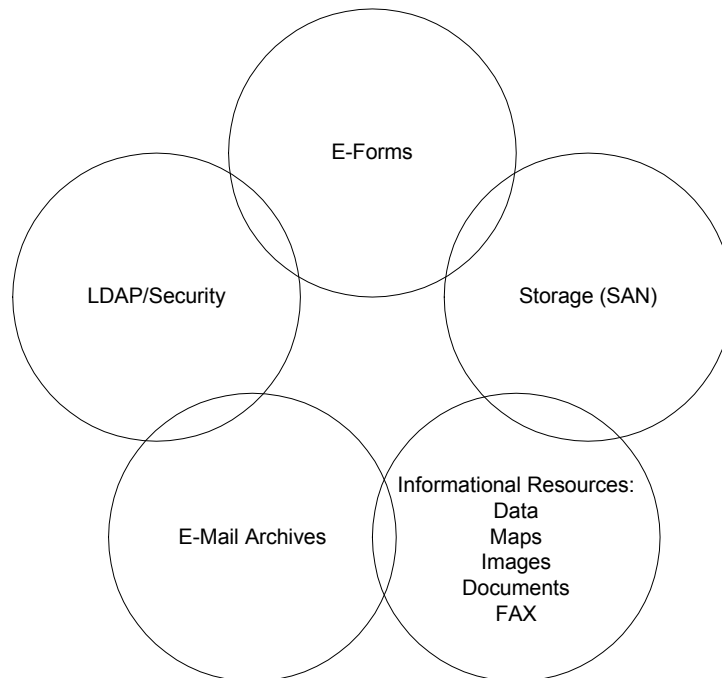
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3. Conformity with applicable NITC technical standards and guidelines (available at <http://www.nitc.state.ne.us/standards/>) and generally accepted industry standards;

The proposed work is consistent with the technical standards and guidelines of the NITC. Vendors' proposed infrastructure and software would be required to meet the generally accepted industry standards and the State guidelines where applicable.

4. Compatibility with existing institutional and/or statewide infrastructure.

The project anticipates adding the components that are required to unify and link together all existing pieces of the informational infrastructure in state government. Our goal is to survey the existing environments and find a solution that will leave those environments in place and in the control of the agencies while providing the necessary access and security.



The concept of enterprise content management is one where the data continues to reside in its multiple technical and physical locations and where the security and access continues to be controlled by the technical processes of the database, workflow process, et cetera. Content management provides the layers to oversee and consolidate the processes and data with a search engine and enterprise portal. With a management solution that uses the existing institutional structures, we can still provide access across application and agency boundaries.

Section VIII: Risk Assessment

Describe possible barriers and risks related to the project. The narrative should address the following:

1. List the identified risks, and relative importance of each;

Obtaining a buy in from state agencies and the sponsorship of top state administration is a critical factor to the success of the project. The issue of content management is a large one and hard to define which may discourage agencies from addressing the problem.

Another associated risk is identifying a reliable solution. A report published this year from the Center for Technology in Government, entitled Knowledge Networking in the Public Sector, points out complexity of the problems faced and the incomplete understanding of the issues involved. They state that IT staff will find "little guidance from the research literature that would help them maximize their chances for developing successful knowledge networks."

2. Identify strategies which have been developed to minimize risks.

The main strategy for reducing the risk of failure due to buy-in from the agencies is education. The analysis portion of the project should indicate the exact nature of the State's needs and the solutions available to resolve the issues.

Thorough research should also reduce the risks of the project. While there may be a lack of adequate literature defining enterprise content management solutions, there are groups studying the issues and companies that are working to address the needs. Our approach will be to contract with a qualified consultant to complete the research.

By investing time in educating the agencies, cooperating with top state administration, and doing thorough preparatory research and analysis, the project should be more successful.

Section IX: Financial Analysis and Budget

1. Provide the following financial information:

	GTCF Grant Funding	Cash Match	In-Kind Match	Other Funding Sources	Total
Personnel Costs					30,000
Phase 1	0	0	5,000		
Phase 2	0	0	25,000		
Capital Expenditures (Hardware, software, etc.)					55,000
Phase 1	0	0	0		
Phase 2	50,000	0	5,000		
Contractual Services					50,000
Phase 1	50,000	0	0		
Phase 2	0	0	0		
Supplies and Materials					
Phase 1	0	0	0		
Phase 2	0	0	0		
Telecommunications					
Phase 1	0	0	0		
Phase 2	0	0	0		
Training					
Phase 1	0	0	0		
Phase 2	0	0	0		
Travel					
Phase 1	0	0	0		
Phase 2	0	0	0		
Other costs					
Phase 1	0	0	0		
Phase 2	0	0	0		
Total	100,000		35,000		135,000

①

②

③

2. Provide a detailed description of the budget items appearing above.

Personnel

Staff from collaborating agencies will support the analysis process as well as the second phase of the project. Our approach to coordinate the analysis phase of the project will be to contract with a qualified consultant.

Capital Expenditures

It is anticipated that there may be five cost areas including: storage, a document management tool, a content management tool, a tool to consolidate processes, and the actual enterprise portal that will serve as the interface to the entire process. The five areas will be supported initially by the grant with the agencies

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and perhaps special appropriations completing the funding. These expenses will include hardware and software.

IMServices will provide the infrastructure of networking and hosting of the servers during the project for connecting the project components together with the state system.

3. Match Requirement: This grant requires a 25% match from the agency. Please use the calculation below to ensure your application meets this requirement.

$$\$0 + \$35,000 / \$135,000 = .26$$

$$\frac{\text{Total Cash Match ①} + \text{Total In-Kind Match ②}}{\text{Total Project Cost ③}} \$ 0.25$$